Eastern Irrigation District

Integrated Resource Plan

Terms of Reference

Alberta
FORESTRY, LANDS
AND WILDLIFE

EASTERN IRRIGATION DISTRICT

INTEGRATED RESOURCE PLAN

TERMS OF REFERENCE

RESOURCE PLANNING BRANCH
PUBLIC LANDS DIVISION
ALBERTA FORESTRY, LANDS AND WILDLIFE

EASTERN IRRIGATION DISTRICT

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PREFACE

Land which today exists within the Eastern Irrigation District (EID) was once part of the Eastern Section of the irrigation land block granted to the Canadian Pacific Railway by the Government of Canada. In 1935 the Eastern Section (which covered an area of 1.5 million ac.), together with a cash settlement of $300 000 and ownership of all irrigation works, was turned over to an organization called the "Eastern Irrigation District." The Eastern Irrigation District Act (1935) provided the legislative framework for directing the affairs of the EID. Today the EID is administered by a seven-member board of directors who are elected from a group of approximately 1200 water users. The board has three primary responsibilities: to ensure water is conveyed to water users within the district for irrigation, domestic and other uses; to ensure the ongoing operation, maintenance and administration of district irrigation works; and to administer and manage district-owned assets, which include approximately 600 000 ac. of grassland.

Under the Irrigation Act of 1968, irrigation districts were formed and defined as statutory corporations. This act incorporated previous irrigation legislation, including individual irrigation district acts, and provided a uniform system for the orderly administration of districts. The Irrigation Act requires that all irrigation districts be administered by an elected board of directors. The powers and duties of district boards, which are considered to be quasi-municipal bodies, are specified within the act. Annual expenditures for the maintenance and operation of irrigation works and administration of irrigation districts are met through payments made by district water users. Through the act an Irrigation Council was established that was empowered, among other things, to "advise each board on the conduct of the affairs of its district."

Integrated resource planning is a decision-making process that provides direction for managing natural resources. The goal of integrated resource planning is to integrate management objectives for a variety of natural resources, land uses and resource activities within a defined planning area. Once approved, integrated resource plans are consulted by government agencies and other organizations when allocating or managing land and resources within the planning area.

These terms of reference set out the purpose and objectives of the Eastern Irrigation District Integrated Resource Plan and identify issues and opportunities that will be addressed by the planning team. This document has been prepared through the cooperative efforts of EID staff and representatives from various government agencies. It will provide direction to the planning team during development of the EID plan.

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1.0 INTRODUCTION

Representatives of the Eastern Irrigation District (EID) made presentations to the Southern Regional Resource Management Committee in April and May of 1988 requesting assistance in the preparation of a long-range, strategic resource management plan for the irrigation district. The intent of this plan includes the following:

1. to identify resource values that exist within the irrigation district;

2. to propose options for allocating natural resources and to identify land use alternatives that would enhance community life and lead to economic diversification of the local economy. (The EID Board of Directors is examining ways to broaden or expand the activities of the EID with the aim of increasing the district's revenue base to ensure its future maintenance, operation and adminstration. The board will consider those activities or developments that complement existing district programs and which are permitted activities under the Irrigation Act);

3. to provide guidelines for managing land and resources that are owned or are under the administrative control of the EID Board of Directors; and

4. to coordinate land use activities to ensure that a balance between resource development and protection is achieved.

The EID board's request for provincial support in the preparation of a strategic resource management plan for the irrigation district was reviewed by the Southern Regional Resource Management Committee and the Resource Integration Committee. The presence of significant, publicly owned natural resources within the irrigation district, in addition to the resources managed by the EID board, pointed to the need for a collaborative approach in plan development by the province and the board.

The EID board and Government of Alberta will cooperate in the preparation of an integrated resource plan (IRP) for the irrigation district. The resource management objectives and programs of both parties will be integrated in the pursuit of a common goal; the optimal utilization of the area's land base and natural resources for the benefit of area residents and all Albertans. This joint approach to plan development has been endorsed by the EID Board of Directors and the Deputy Minister of Forestry, Lands and Wildlife. The existing integrated resource planning process used in Alberta may be modified to ensure that the activities of the EID board and the provincial government are coordinated to facilitate successful completion of this plan. The plan will provide resource management objectives and policy guidelines that will be observed by the EID board and the Government of Alberta.

Traditionally, the integrated resource planning process used in Alberta has been directed at the management of land and resources occurring only on public land. Preparation of an IRP for the EID represents a departure from previous IRPs in that virtually all lands within the planning area are privately owned. The EID alone owns 40 percent of the land within

the planning area. This plan will provide an opportunity to interrelate resource management and planning functions carried out by the EID board, County of Newell, Southeast Alberta Regional Planning Commission and various government agencies.

2.0 PLANNING AREA

The Eastern Irrigation District is situated between the Red Deer River and Bow River in southeastern Alberta (Figure 1). Geographically, the irrigation district's boundaries are virtually congruent with those of the County of Newell. The total population of the planning area is approximately 18 000. Brooks (pop. 9500), which is centrally located within the district along the TransCanada Highway, is the administrative center for the EID and county.

In terms of its areal extent, the EID is the largest of 13 irrigation districts located in southern Alberta, and contains approximately 1.5 million ac. of land (6000 km^2). Of this area, 260 000 ac. are irrigated annually with the remainder being used for dry land cultivation, livestock grazing and other uses. The majority of land within the planning area is under private ownership; the EID alone has title to 600 000 ac. of land. Public land within the irrigation district (excluding provincial parks) totals approximately 12 000 ac., which accounts for 0.8 percent of the planning area. Public lands are primarily under disposition for grazing and reservation for wildlife conservation. Provincial parks within the irrigation district cover an area of 8790 ac. (0.58 percent of the planning area).

Water resources throughout the province are vested in the Crown in right of Alberta. An existing license under the Water Resources Act permits the EID to divert water for irrigation and other uses. Water is diverted into the irrigation district from the Bow River at the Bassano Dam.

Irrigation developments have resulted in the creation of several large storage reservoirs, an extensive system of canals and numerous wetland areas. Water is a resource of great significance and importance within the planning area. It makes irrigation farming possible; provides habitat for fish and wildlife; is used for industrial, community and domestic purposes; sustains livestock; facilitates various recreation uses; and provides a base for local parks and tourism developments. Water diverted from the Bow River is essential to the planning area's economic health and growth. Because water resources are limited, available supplies must be carefully allocated and managed.

A portion of Dinosaur Provincial Park, a UNESCO World Heritage site, is located in the northeastern corner of the irrigation district. Kinbrook Island Provincial Park and Tillebrook TransCanada Provincial Park are used for camping and other recreational activities. Critical habitat for a variety of wildlife including waterfowl, upland game birds, ungulates and other species occurs throughout the planning area. An active energy sector produces both natural gas and oil; significant coal deposits are found south of Brooks. The majority of mineral rights in the planning area are under private (freehold) ownership. Deposits of ammonite occur in the Bow River and Red Deer River valleys. Other significant historical resources are found within the irrigation district.

The Eastern Irrigation District is found within the Eastern Alberta Plains and is underlain by Upper Cretaceous shales and sandstones of the Bearspaw, Oldman and Foremost formations. Elevations within the irrigation district range from 630 m in the Red Deer River valley to over 810 m atop Little Rolling Hills and Spring Hill. Two physiographic

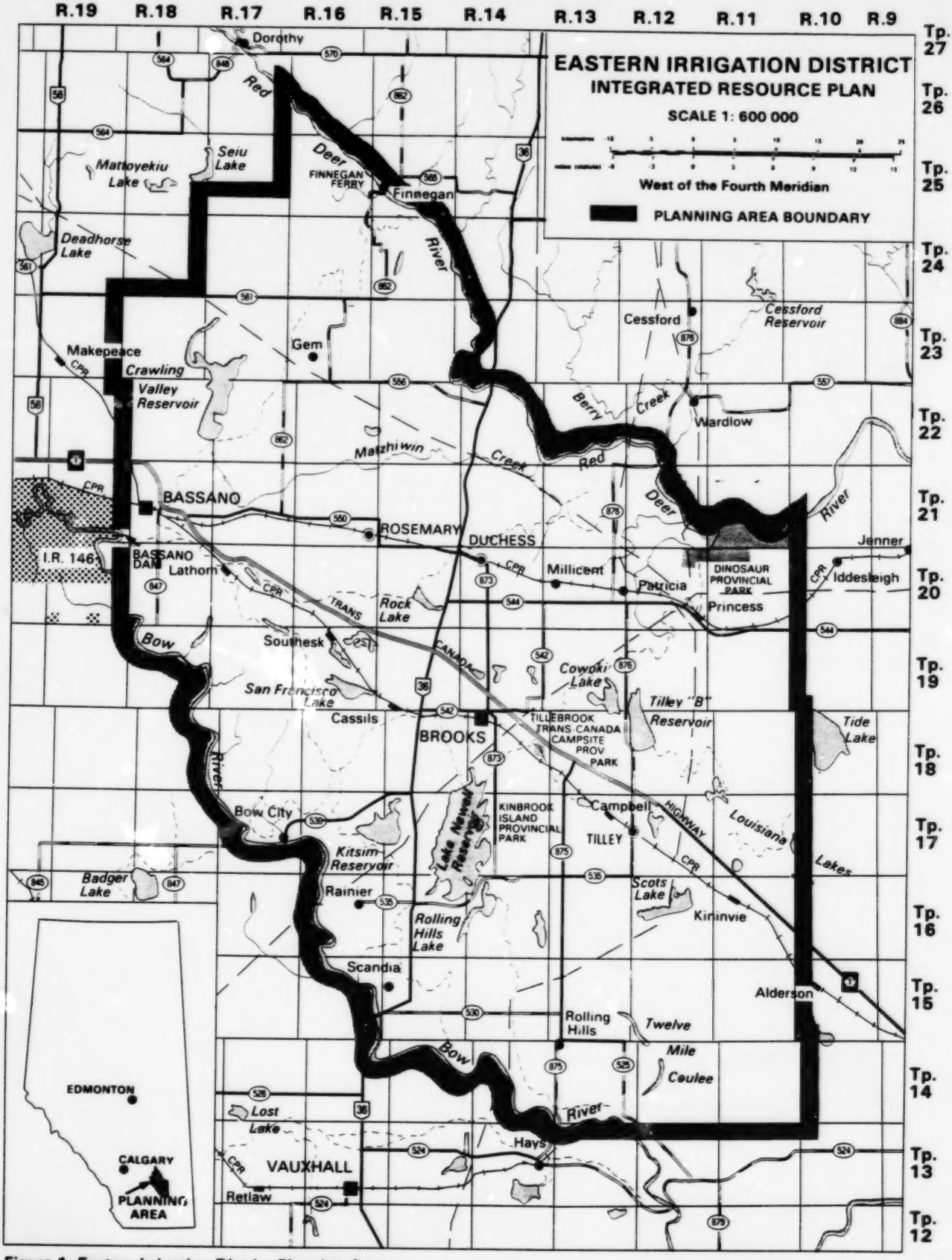

Figure 1: Eastern Irrigation District Planning Area.

subregions occur within the planning area as part of the larger Eastern Alberta Plains. These physiographic subregions have north-south orientation. The Kininvie Plain extends west from Brooks and Lake Newell to the Bow River and east from Kininvie, extending north to Dinosaur Provincial Park and south to the Bow River. The Kininvie Plain is comprised of gently undulating morainal veneers and blankets overlying bedrock. The second subregion, the Matzhiwin Plain, is found throughout the remaining center portion of the planning area and is composed of reworked glaciofluvial and eolian deposits. Minor amounts of finer glaciolacustrine materials are found throughout the irrigation district. The "Sandhills" are a part of the Matzhiwin Plain.

Ecologically, the planning area occurs within the Short Grass Ecoregion of Alberta. This ecoregion is more conventionally referred to as the driest part of the Mixed Grass prairie. The planning area is subjected to a continental prairie climate characterized by cold winters, warm summers and low precipitation. Both summer and winter precipitation levels are the lowest in Alberta. High summer temperatures, low precipitation levels, strong winds and high insolation values combine to produce high potential evapotranspiration values and a large climatic moisture deficit of approximately 300 mm.

Plant species within the Short Grass Ecoregion reflect the severe moisture deficit that occurs in mid to late summer. Spear grasses, wheat grasses and grama grasses are the dominant native vegetation. These grasses are typically found in well drained Brown Chernozemic soils. On more moist sites, shrub communities of buck brush and rose bushes occur. Much of the native range has been changed by cattle grazing.

3.0 PURPOSE AND SCOPE OF THE PLAN

The Eastern Irrigation District Integrated Resource Plan will provide direction in the management of EID-owned land, public land and public resources (e.g., water and wildlife) within the planning area. A comprehensive and coordinated approach to plan development will be adopted. Emphasis will be placed on the integration of resource management objectives and guidelines. Preparation of this plan will promote optimal use of EID-owned land, public land and all public resources within the planning area to ensure that benefits are derived at both regional and provincial levels.

More specifically, the plan will:

1. provide a clear statement of natural resources policy for the planning area;

2. identify, define and integrate specific land use and resource management objectives;

3. provide guidelines for achieving specific land use and resource management objectives, including when and where various land uses should be permitted and how resource activities should take place;

4. identify opportunities for land and resource use and development that are compatible with EID and government policy, preserve the natural and cultural integrity of the area, and encourage economic diversification within the region;

5. identify and resolve resource conflicts and potential impacts associated with specific development proposals, resource activities and land uses;

6. propose resolutions for resource management issues identified in this document;

7. include an implementation strategy specifying roles and responsibilities for implementation, monitoring, amendment and review of the EID plan; and

8. identify studies, inventories or research projects that are needed to improve resource management decision-making.

The planning team will:

1. review ongoing EID and government programs, projects and other initiatives within the planning area;

2. identify and assess the significance of natural resources and land uses found within the planning area (e.g., water, agriculture, rangeland, wetlands, fish and wildlife, tourism, recreation, historical resources, oil and natural gas, coal, aggregate materials and environmentally significant areas) with a view towards providing a system of zonation for resource planning and management;

3. determine the capability, potential, current use and demand for land and resources within the planning area; and

4. adopt or develop a land and resource allocation system whereby specific land uses and resource activities are encouraged in designated areas.

The purpose of the EID plan is to integrate resource activities that occur within the irrigation district. A comprehensive and holistic approach to plan development will be taken which recognizes the interactions that exist among resource activities, i.e., management of one natural resource invariably impacts on or influences the use of other resources. Therefore, all resource values must be considered when management objectives are developed for each specific resource sector. The development of integrated resource management objectives and associated guidelines within the EID plan will provide a means for achieving sustainable development within the irrigation district.

The focus of the EID plan will be on natural resources occurring within the irrigation district that are under the jurisdiction or administrative control of the EID board and Government of Alberta. Management of these resources may, however, affect the use of privately owned land and resources or influence resource management programs and initiatives that are not under the authority of the EID board or provincial government agencies. The planning process will include consideration of all natural resource interests within the planning area and address natural resource management concerns that are brought to the attention of the planning team.

In terms of its scope, the EID plan will not determine project priorities, provide management direction on a site-specific basis, or evaluate alternative development proposals. The plan will not examine whether the quantity of water diverted from the Bow River into the irrigation district under the existing EID license is adequate given current or future demand, nor will it determine how irrigation expansion is to occur within the irrigation district. Lastly, the EID plan will not address instream flow needs or other water management considerations for the Bow and Red Deer rivers. These issues will be dealt with in other planning-related activities.

Once approved, the plan will set out a policy framework for natural resource management within the planning area. The plan will assist the EID board as it examines development opportunities and manages land and water resources under its authority. It will be consulted by government agencies and other organizations having resource management responsibilities or interests within the planning area. The plan will only apply to public land and EID-owned land; it will not apply to other private land within the planning area.

The plan will take into account the Southern Region Integrated Resource Plan, the Southeast Alberta Regional Plan, and any local plans and bylaws. The plan will also recognize ongoing projects and programs within the planning area. Changes to existing statutory plans, bylaws, resource policies or programs, based on recommendations provided in the EID plan, may result from the development of this plan. Coordination of plan implementation is the responsibility of the EID board and the EID Steering Committee.

The plan itself, along with the revision process, will be sufficiently flexible to accommodate changes in the demand for land and natural resources. New information pertaining to the management or allocation of natural resources may result in revisions to the plan.

4.0 ISSUES, CONCERNS AND OPPORTUNITIES

The plan will address issues, concerns and opportunities identified by the planning team, consultants to the team and members of the public. The issues, concerns and opportunities that are identified below relate to land and resources found in the planning area. Additional issues, concerns and opportunities identified throughout the planning process will also be addressed in the plan. Issues have been grouped into 12 alphabetically arranged categories; no priority is implied by the order of categories.

4.1 Access Management

- There is a demand for public access to reservoirs, wetlands, native rangeland and other areas.
- Development associated with the exploration for and extraction of oil, gas and other minerals extends access into areas where public access is not intended.
- Road construction and improper reclamation techniques result in a reduction of rangeland productivity.
- Proliferation of access as a result of resource road construction leads to increased wildlife disturbance, hunting pressure, range degradation and other impacts.
- Access restrictions are needed for areas having high cultural or environmental value.
- Hazards associated with the use of access roads by the public need to be identified.
- Access must be considered to provide for the recovery of mineral resources.
- Concerns related to access for hunting should continue to be addressed with groups, such as the Brooks and District Fish and Game Association, in cooperation with the EID and the Fish and Wildlife Division.

4.2 Conservation and Ecological Resources

- Environmentally significant areas need to be identified and protected.
- The conservation of land and water resources needs to be promoted.

4.3 Cultivated Land

- EID-owned lands having irrigation or dryland cultivation potential need to be identified.

- Opportunities to integrate agricultural production with other resource values need to be identified and promoted.
- Soil management programs, including education and extension services, need to be continued to encourage soil conservation practices.
- Some farming practices have resulted in wildlife habitat losses.
- There is a need to increase farmers' awareness of the significance of fish and wildlife resources occurring on or adjacent to cultivated land.
- The effectiveness of existing incentives and programs, which encourage rural landowners to retain significant wildlife habitat, need to be determined.
- Grassland areas that should not be considered for future cultivation need to be identified.
- Opportunities exist to further increase crop diversity and develop processing facilities.

4.4 Fisheries

- Opportunities may exist for developing fisheries in irrigation reservoirs.
- Potential may exist for increasing commercial fish production.
- Opportunities exist for fish habitat development and enhancement to support sport-fishing.
- Economic values of commercial and sport fisheries are not well determined.
- Use of herbicides and pesticides on canal banks, adjoining land, and the perimeter of reservoirs negatively affects fish, other aquatic life forms and wildlife.

4.5 Historical Resources (Historical, Archaeological, Palaeontological)

- Significant historical resource sites need to be identified for protection and/or interpretation.
- Human activity resulting in land surface disturbance may result in the loss of non-renewable historical resources.
- The extraction of ammonite will result in surface impacts, which may affect local resource values or land uses.
- Potential exists to develop a viable ammonite industry.

4.6 Minerals (Oil, Gas, Coal, Aggregates)

- The planning process will take into consideration the value of subsurface minerals and of prevailing right-of-entry legislation.
- Long-term opportunities for mineral resource development continue to exist.
- Large-scale or intensive mineral development displaces existing land uses.
- Actual or potential conflicts between mineral activities and other resource uses need to be documented.
- Improperly managed mineral exploration and development could have a negative impact on native grassland ecosystems.
- Extensive road networks exist; there is a duplication of access to sites among petroleum and natural gas operators.
- There is a demand for aggregate resources.
- Land allocation or resource management decisions could influence access to freehold minerals underlying EID-owned or public lands.
- The exploration for and recovery of mineral resources under or adjacent to irrigation reservoirs and wetlands may result in negative impacts to the environment and affect water quality, recreational uses and other activities.

4.7 Rangeland

- Grazing is viewed as a high priority among area ranchers.
- Rangeland can provide multiple-use benefits.
- Drought, larger cow size, larger and older calves and traditional management have severely stressed EID-owned grasslands; improved management practices are needed to increase range productivity.
- Range areas need to be managed for both livestock and wildlife production.
- Damage to fish and wildlife habitat may result from livestock watering at water bodies.
- Range management plans have a direct impact on the financial viability of private farms and ranches.

- Native mixed grass prairie ecosystems having conservation significance may occur within the planning area.

- Grasslands having regional or local importance for range use may be lost to alternative uses.

4.8 Recreation

- There is a need for boat-launching facilities, camping and day use areas and improved access to fishing sites.

- Conflicts exist between some recreational activities and other land uses.

- Abundant wildlife resources can support various consumptive and nonconsumptive outdoor recreational opportunities.

- Irrigation reservoirs have high recreation potential.

- Irrigation canals can be managed for specific recreational uses.

- Motorized recreation activities need to be confined to designated areas to minimize environmental damage.

4.9 Settlement (including Industrial Development)

- The impacts that the plan will have on the local community need to be understood.

- Settlement patterns around reservoirs may affect or limit other resource uses or activities.

- Opportunities exist for country residential development and cottage development.

- The impacts of existing and new industrial development on other land uses need to be determined.

- Resource development may facilitate economic diversification within the planning area.

- Routing of power lines and siting of utility corridors may affect other land uses.

- Potential exists within the planning area for the development of transmission, distribution and generation facilities for electric power.

4.10 Tourism

- The identification and assessment of tourism opportunities is needed.
- There is a need to promote the overall sustainability of tourism.
- Tourism developments should complement existing and future land uses.
- The requirements of tourism development (e.g., suitable infrastructure) need to be identified and addressed.

4.11 Water

- Irrigation should continue to be a high priority water use.
- Competition for limited water supplies necessitates that multiple-use benefits be achieved wherever possible.
- Water quality is important for domestic, tourism, recreation, irrigation and fish and wildlife uses.
- Possibilities for irrigation expansion exist through increased efficiencies in the water delivery system and through the promotion of water conservation.
- Reservoir drawdown and water level fluctuations affect other resources.
- Water seepage from canals results in both positive and negative effects: seepage creates wildlife habitat and raises the productivity of adjoining pasture and crop lands; seepage may lead to soil salinity.
- Canal rehabilitation projects can benefit wildlife and enhance recreation opportunities.
- Potential exists to increase water storage capacity within the irrigation district.
- Return flows to the Bow and Red Deer rivers may influence water quality.
- Drainage of wetlands eliminates wildlife habitat.

4.12 Wildlife

- Important wildlife habitat areas need to be identified.
- Critical wildlife habitat areas on private land need to be protected to ensure the maintenance of wildlife populations.

- Habitat corridors need to be identified.
- Techniques for managing wildlife on private land are needed.
- Conflicts exist between hunters and local grazing associations, ranchers and farmers.
- Crop depredation by wildlife is a problem in a few areas.
- Programs related to the prevention and reduction of crop depredation need to be assessed.
- Compensation for habitat retention and for wildlife-related crop damage is seen to be inadequate.
- Rare and endangered species must be considered when managing other resources.
- Economic values of wildlife resources are not well determined.
- Wildlife may compete with livestock for forage.
- Water conveyance through the irrigation delivery system and canal rehabilitation projects affect the quantity and quality of wetland habitat.
- Fences and irrigation canals may restrict the natural movement of some animal species.
- Opportunities exist for additional consumptive and nonconsumptive uses of wildlife.
- Riparian habitat areas are critical for wildlife.
- Potential exists for managing canal rights-of-way as wildlife habitat.

5.0 POLICY AND PLANNING CONTEXT

Land and resource management activities within the irrigation district are presently guided and regulated by numerous government directives including legislation, policy guidelines, planning instruments and agency programs. It is within the context of these and other existing measures that the EID plan will be developed. Government policy, projects and programs within the planning area will be identified by agency representatives and reviewed by the planning team.

Provincial policy statements that may apply to this plan include the following:

- A Coal Development Policy for Alberta;
- A Fish and Wildlife Policy for Alberta; and
- Position and Policy Statement on Tourism.

5.1 Eastern Irrigation District - Mission Statement

The Eastern Irrigation District exists in order to provide for the timely delivery of water to its water users for irrigation and domestic purposes, and to provide for sustainable grasslands in support of a mixed-farm economy. The Eastern Irrigation District's control of water and ownership of lands also enables it to approach these prime objectives in a manner that is sensitive to the environment and of benefit to the public of Alberta and Canada at large. Where practicable to do so, the Eastern Irrigation District will actively encourage development of its land base and water resources to promote and enhance a number of activities, including additional irrigation development, wildlife habitat development and enhancement, regional economic expansion, tourism and recreation opportunities, research into new technologies and any other activities that are harmonious with the prime objective of the Eastern Irrigation District.

5.2 Irrigation Act

The Irrigation Act provides the legislative authority for the formation of irrigation districts within the province and for the administration of districts by elected boards and appointed managers. Among other things, district boards are responsible for distributing water to water users within each district and for the operation and maintenance of water conveyance systems. The act sets out the manner in which water is to be supplied for irrigation, domestic and other uses. A legislated amendment to the Irrigation Act was given royal assent on July 5, 1990. The amendment permits irrigation district boards to use a body of water, a water course or land that is owned or under the administration of a board for any activity, development or business (which is not specified within the act), subject to cabinet approval.

5.3 Water Resources Act

The Water Resources Act, which is administered by Alberta Environment, requires that licenses be obtained by any individual or group to divert water from Alberta's rivers. The volume of water, the rate at which it can be diverted from any river, the periods during which diversions can take place and the purpose for which water is to be used may be specified in each license.

5.4 Soil Conservation Act

The Soil Conservation Act requires that all landholders take appropriate measures to prevent soil loss and soil deterioration on lands under their control. The act empowers designated agricultural fieldmen or soil conservation officers to direct landholders to undertake appropriate remedial measures where necessary.

5.5 Historical Resources Act

The Historical Resources Act provides for the study, interpretation, promotion and appreciation of Alberta's historical resources. Provisions within the act establish a coordination mechanism to ensure the orderly development of historical resources. Under the act, the Minister of Culture and Multiculturalism is empowered to, among other things:

- designate any historic resource as either a Registered or Provincial Historic Resource (which is used as a means of protecting historic resources); and
- request an Historical Resources Impact Assessment (at the expense of the proponent) for any development on public or private land that may impact historical resources.

The act states that any historical resources discovered through excavation activity, where such excavation is undertaken for purposes other than the recovery of historical resources, must be reported to the Minister. Sections 26-2 and 28-3 of the act allow for the exemption and disposition of historic resources at the discretion of the Minister. The act identifies the natural remains of all archaeological and palaeontological resources within the province as being public resources that are vested in the Crown in right of Alberta.

5.6 Oil and Gas Conservation Act

The purpose of this act is, among other things, to: ensure efficient practices in the location and spacing of oil and gas wells; provide for the economic, orderly and efficient development of the oil and gas resource (in the public interest); and control pollution at or below the surface with respect to operations over which the Energy Resources Conservation Board has jurisdiction.

5.7 Surface Rights Act

Under the Surface Rights Act, when the surface of any land required by an operator for the drilling and operation of wells, for mining operations, or for necessary roadways is inaccessible because the operator cannot acquire the consent of the owner and the occupant, then the operator may apply to the Surface Rights Board for a right-of-entry order in respect of the surface of the land that may be necessary for the performance of his operations.

5.8 Planning Instruments

The Planning Act provides the framework for land use planning and development control on private land throughout the province. Most private developments on public land also fall under the jurisdiction of this act. Two statutory plans and one plan implementation measure, which guide and regulate land use within the planning area, derive their authority from the Planning Act.

SOUTHEAST ALBERTA REGIONAL PLAN

This plan guides the present and future land use patterns within the southeastern planning region through broad policy directives. Regional policy guidelines are to be considered by member municipalities when drafting general municipal plans. The Southeast Alberta Regional Planning Commission is responsible for preparing the regional plan.

COUNTY OF NEWELL LAND USE BYLAW

The County of Newell Land Use Bylaw identifies various land use districts within the County and establishes standards and conditions that regulate and control land use and development in each district.

CRAWLING VALLEY RESERVOIR AREA STRUCTURE PLAN

An area structure plan has been created for the Crawling Valley Reservoir to: establish development policies which describe the types of uses permitted; set development densities; outline minimum standards of servicing for roads, streets and utilities; and provide for the protection of existing rural and natural values in the area. The overall intent of the plan is to allow economically viable, compatible land use developments that will not adversely affect adjacent lands or unduly alter the landscape of the majority of the Crawling Valley Reservoir area.

5.9 Southern Region Integrated Resource Plan

The EID planning area is a subregion within the southern administrative region of Alberta Forestry, Lands and Wildlife. At present the Southern Region Integrated Resource Plan is at the draft stage of completion. It provides general resource management policies of the

provincial government for public lands and resources within the southern region. Unlike the regional plan, the EID plan will contain specific resource management objectives targeted for more narrowly defined land areas and resource activities.

5.10 Prairie Conservation Action Plan

In December 1988, the Government of Alberta (along with governments of the other prairie provinces) and World Wildlife Fund Canada jointly released a Prairie Conservation Action Plan (PCAP). The PCAP provides a five-year blueprint for prairie-wide conservation and management efforts to protect native prairie and parkland species, communities and habitats.

The PCAP consists of a series of goals and associated recommendations identifying the need for action in such areas as identifying remaining native parkland and prairie, protecting representative areas within each prairie ecoregion, developing a series of connecting corridors, implementing habitat restoration and management plans, encouraging governments to promote conservation of native prairie, and encouraging balanced use of private lands to maintain and enhance native biological diversity.

Because the scope of the PCAP is broad, effective plan implementation will entail co-ordinated action by numerous organizations. To ensure this occurs, the provincial government has established a Prairie Conservation Co-ordinating Committee to provide an appropriate focus and profile for the cooperative pursuit of initiatives identified in the PCAP. This committee will include representatives from federal, provincial and municipal levels of government, from nongovernment organizations, from academia and representatives from agriculture and industry.

5.11 Wildlife and Fisheries Initiatives

NORTH AMERICAN WATERFOWL MANAGEMENT PLAN

The North American Waterfowl Management Plan (NAWMP) is a joint agreement between the United States and Canada to protect and manage waterfowl and wetland habitat areas across the continent. The plan provides the framework for waterfowl conservation and management over a 15-year time horizon. International objectives will be implemented through provincial and territorial action plans and joint venture action projects.

DUCKS UNLIMITED PROJECTS

Ducks Unlimited Canada is a private, nonprofit, internationally supported conservation organization whose goals are to preserve, restore, develop and maintain waterfowl breeding habitat in Canada. Ducks Unlimited has been actively involved in the Eastern Irrigation District, funding numerous projects related to waterfowl habitat enhancement. Over 300 wetland areas, comprising approximately 30 000 ac. of habitat, have been created or

enhanced within the irrigation district through the efforts of Ducks Unlimited (an additional 60 000 ac. of habitat could be developed). Projects provide multiple-use benefits beyond securing and protecting waterfowl habitat. Projects provide water storage for irrigation purposes, water for use by cattle, and water for various recreational pursuits. Furthermore, wetland habitat provides benefits for all wildlife species, not just waterfowl.

BUCK FOR WILDLIFE PROGRAM

Levies obtained from the sale of hunting and fishing licenses, permits and certificates, along with donations and grants from nongovernment organizations, is used in Alberta to fund a variety of habitat enhancement projects. Buck for Wildlife funding is used within the EID to create or improve habitat for fish, wildlife and upland game birds.

COOPERATIVE VENTURES AGREEMENT

An ongoing agreement exists between the EID board and the Alberta Fish and Wildlife Division to secure and enhance critical wetland and upland habitat for wildlife within the irrigation district. There are plans currently underway to extend the existing three-year agreement to 10 years, but funding has yet to be determined. Under the terms of this agreement, the Buck for Wildlife Program will supply funding to the EID board for habitat development projects. Ducks Unlimited has cooperated with Fish and Wildlife in the EID Cooperative Ventures program by matching provincial funding. To date, Fish and Wildlife and Ducks Unlimited have each contributed $500 000 annually. The EID board supplies engineering and construction resources to complete designated water management projects. Wetlands for waterfowl production and improved overwintering areas for pheasants, deer and nongame species have been secured through this agreement.

LANDOWNER HABITAT PROGRAM

Funded in part by the Buck for Wildlife Fund, this program is aimed at securing critical wildlife habitat within settled areas of the province. Contracts have been signed with numerous landowners in the EID to retain important wetlands on private land. Contracts identify the arrangement that has been mutually agreed upon by the landowner and Fish and Wildlife. This is not a government subsidy program.

5.12 Water Management Policy for the South Saskatchewan River Basin

Six policy measures for managing water within the South Saskatchewan River Basin (SSRB) were announced by the Minister of Alberta Environment on May 28, 1990. They are:

1. Multi-Purpose Use

   Multiple use will continue to be the principle governing the use and management of the waters in the SSRB.

2. Priority of Uses, Minimum Flows and Preferred Instream Flows

The ownership of all surface water and ground water is vested in the Province. "Minimum" flows will be established on an individual river reach basis and these flows will be maintained to protect basic water quality and instream needs. Individual rights to divert and use water are granted in the form of licences, in accordance with legislation. These rights and their priority, as established by the date of application, will be respected. "Preferred" instream flows will be established on an individual river reach basis to protect desirable instream needs. The Province will reserve water when a predetermined level of allocation to licensed users and to instream flow requirements has been reached. A system of preferential use will be used to determine further allocations of water.

3. Irrigation

Maximum water allocation for irrigation purposes in the Red Deer, Bow and Oldman basins will be established with consideration given to requirements for all other uses.

4. Apportionment Commitments

Alberta will continue to manage the waters of the Red Deer, Bow, Oldman and South Saskatchewan Rivers in concert, with due regard to the needs and potential of each sub-basin, to ensure that the province's interprovincial commitments under the Master Agreement on Apportionment are met and to best serve the needs of all water users in the basin.

5. Water Conservation

The true value of water must be recognized to ensure that it is put to its most beneficial use and is not wasted. To achieve this goal, objectives and guidelines for conservation and efficiency will be developed.

6. Public Consultation

Public consultation has been an accepted policy in water management in Alberta. The government will continue to be committed to full public consultation throughout the implementation of this water management policy.

5.13 A System for Integrated Resource Planning in Alberta

"A System for Integrated Resource Planning in Alberta" describes the philosophy and principles of integrated resource management adopted by the Government of Alberta. The integrated resource planning process and plan review and approval process are outlined within this document. Public involvement is considered to be an integral component of the integrated resource planning, decision-making process.

6.0 DATA COLLECTION AND ANALYSIS

The primary intent of data collection is to supply relevant information to the planning team. This information forms the basis for developing resource management objectives and resolving resource issues within the planning area. To facilitate decision-making, team members are requested to provide information for the following categories:

- resource capability;
- current use;
- resource potential;
- demand;
- resource opportunities; and
- resource conflicts.

Information will be plotted on a standard base map of the planning area. A map scale of 1:100 000 will be used for this project.

Planning team members will identify resource information sources that will be used for decision-making. The planning team coordinator may request that specific information be made available for analysis and review, and may consult with team members directly to obtain information that may be of value to the team.

In the interest of proceeding without long delays, planning team members will be expected to maximize use of existing data and information. Minor data shortages will be filled throughout the planning process. The plan will contain provisions for addressing major data gaps and identify special studies that may be required.

Planning team members will use the best information available to develop specific objectives for the use and management of resources within their agencies' responsibilities, to justify these objectives to the planning team, to develop guidelines for meeting stated objectives, to identify existing and potential conflict areas, and to identify opportunities for using land and resources within the irrigation district. Existing information will be used to assess the consequences of various land use alternatives and resource opportunities.

An inventory of wetland and upland habitat areas within the irrigation district has been completed. Resource inventory work was undertaken in the spring of 1989 by the Resource Information Branch, Alberta Forestry, Lands and Wildlife (FLW) to provide detailed information on changes to wetland habitat areas and map critical habitat for several species of wildlife. The Resource Information Branch has also mapped pronghorn antelope winter range and examined the change in winter range conditions between 1977 and 1990.

The Southeast Alberta Regional Planning Commission and FLW are cooperating in funding an Environmentally Significant Areas study for the County of Newell. This study will identify areas within the irrigation district that will be considered for environmental protection.

The Renewable Resources Branch of the Forest Industry Development Division, FLW, has been involved with and financially supported studies to assess potential tourism and recreation development opportunities within the irrigation district. These studies were focused on the following sites: Lake Newell, Crawling Valley Reservoir and Rollings Hills Reservoir.

7.0 PARTICIPANTS IN PLAN DEVELOPMENT AND REVIEW

A wide range of opportunities to participate in the development of the EID plan will be provided to ensure well-informed resource management decisions are made and to increase commitment to the final plan.

A planning team approach is used in the development of integrated resource plans. The planning team consists of representatives from provincial government agencies and regional and municipal authorities having a legislated responsibility for resource management in the planning area. A planning team coordinator, provided by the Resource Planning Branch, FLW, is responsible for the overall coordination of plan development. Individual team members will be familiar with the planning area and the resource management objectives of their respective agencies.

The integrated resource plan for the EID will be prepared by a planning team which includes representatives from the following agencies and organizations:

1. Eastern Irrigation District
2. Alberta Forestry, Lands and Wildlife
   - Public Lands Division
   - Fish and Wildlife Division
   - Renewable Resource Branch
   - Resource Information Branch
   - Resource Planning Branch
3. Alberta Agriculture
4. Alberta Environment
5. Alberta Energy
6. Alberta Recreation and Parks
7. Alberta Tourism
8. Alberta Culture and Multiculturalism
9. Alberta Transportation and Utilities
10. Alberta Economic Development and Trade
11. Energy Resources Conservation Board
12. Southeast Alberta Regional Planning Commission

Representatives from the above-listed departments and agencies have the option of becoming consultants to the planning team if their interests in the planning are not significant enough to justify full involvement. Consultants participate to the extent required by their level of responsibility or concern. They are advised of planning team activities and decisions and are given opportunity to provide input at key stages of plan development.

Planning documents prepared by the planning team will be reviewed and will require the approval of the EID board. Following board approvals, these documents will require the endorsement of a hierarchy of interdepartmental government committees. More specifically, the draft plan will require endorsement by the EID Steering Committee, the Resource Integration Committee and other senior government committees. Following

ministerial approval, the draft plan will be adopted as policy by provincial resource management agencies. The EID board's involvement is critical to ensure the successful completion and implementation of the plan.

Integrated resource planning relies on a systematic approach to problem-solving involving three basic stages: gathering information, making a choice among alternatives and taking action. An outline of the decision-making process is illustrated in Figure 2.

STAGE		STEP	DOCUMENT
Information	1.	Initiation of the plan.	Terms of reference.
	2.	Collection and analysis of natural resource data.	Various maps and reports.
Choice	3.	Development of broad resource management objectives.	
	4.	Development of a resource management policy.	Resource management policy (optional).
	5.	Spatially define resource management areas; allocate land and resources.	Maps: resource management areas; land use zoning.
	6.	Development of resource management objectives, guidelines and opportunities.	
	7.	Consolidation of direction.	Draft plan.
	8.	Acceptance by decision-makers.	Final plan.
Action	9.	Development of a plan implementation strategy.	*
	10.	Review and revision of the plan.	*

*Agency operational plans, annual reports, 5 year assessments and major review documents may be prepared at steps 9 and 10.

NOTE: Steps 3 to 6 are part of an interative process.

Figure 2. Decision-making process.

8.0 PUBLIC INVOLVEMENT

A public involvement program will be conducted during plan development to provide the public with information and opportunities to comment on planning products. Specific objectives of public involvement are:

1. To use the knowledge of residents, organized interest groups and industry to evaluate and improve the resource data base.

2. To obtain public opinion on issues that should be addressed and resource management direction which should be included in the plan.

3. To provide an opportunity for industry and other parties to contribute in the development of planning policy that may affect them directly.

4. To build public support for the plan.

5. To inform the public about the potential effects of resource management decisions.

6. To inform government officials and politicians about public opinion regarding the plan.

The public will be invited to comment on the terms of reference and draft plan. Various techniques for public consultation are available, including the following: roundtables, information exchange sessions, written submissions, and presentations to the planning team. The public will be kept informed of project progress and plan development using one or several of the following proposed methods: flyers, planner's updates, open houses, advertising and distribution of planning documents. A mailing list will be established to include all individuals and groups wishing to be notified of project happenings. Public input, submissions and comments will be retained as transcripts and will form the basis for a public input summary. Members of the public seeking clarification or information on the plan may contact the planning team coordinator or EID representatives. Suggestions and comments from interested people are welcomed throughout plan development.

9.0 PLANNING SCHEDULE

Efforts will be made to streamline plan development to ensure that the EID plan is completed in a timely manner. Expected completion dates are provided below.

Planning Products or Stages

Terms of Reference	October 1990
Data Collection and Analysis	February 1991
Draft Plan	July 1991
Final Plan	November 1991

Public Involvement

Review Terms of Reference	August 1990
Review Draft Plan	August 1991